

WHAT IS CLAIMED IS:

1. An electrical connector assembly comprising:

a first connector element supporting first connector terminals,

5 a second connector element supporting second connector terminals to be electrically connected with the first connector terminals and being to be inserted in and mated with the first connector element, and

a latch element having a cantilevered flexible portion supported at one end portion and projected to be freely deflectable at the other end portion so  
10 that when the latch element is inserted in an opening formed in the first connector element, the other end portion of the cantilevered flexible portion is mated with and latchingly engaged in the first connector element,

wherein when the second connector element is inserted in and mated with the first connector element latchingly engaging with the latch element,  
15 the cantilevered flexible portion is contacted with the second connector element and is deflected to force the other end portion of the cantilevered flexible portion to move in a direction orthogonal to an insertion/mating direction of the second connector element, so as to release the engagement of the latch element with the first connector element, thereby rendering the  
20 latch element movable in an insertion direction thereof.

2. The electrical connector assembly according to Claim 1, wherein when the latch element is inserted in the opening, a first recessed portion formed in the first connector element and a first projected portion provided at the other end portion of cantilevered flexible portion are mated with each other  
25 to bring the latch element into latching engagement with the first connector

element, while on the other hand, when the second connector element is inserted in and mated with the first connector element, the first projected portion is moved in a direction orthogonal to the insertion/mating direction to allow release of the retention of the first projected portion in the first recessed portion.

3. The electrical connector assembly according to Claim 2, wherein when the second connector element is inserted in and mated with the first connector element, a lug portion projected in the second connector element is engaged in the first recessed portion to put the first and second connector elements into mating engagement with each other and also the first projected portion retained in the first recessed portion is pushed up in the direction orthogonal to the insertion/mating direction of the second connector element by the lug portion, to allow release of the retention of the first projected portion in the first recessed portion.

4. The electrical connector assembly according to Claim 2, wherein the opening of the first connector element is formed by an aperture between an outer wall formed at an outside of the first connector element and an inner wall formed at an inside of the same, and the first recessed portion is formed as a through hole in the inner wall.

5. The electrical connector assembly according to Claim 4, wherein the latch element has a second projected portion to be abutted with the inner wall when the first recessed portion and the lug portion are engaged with each other, so as to restrain the latch element from moving in a direction in which the engagement between the first recessed portion and the lug portion is released.

6. The electrical connector assembly according to Claim 5, wherein there are provided a plurality of second projected portions.

7. The electrical connector assembly according to Claim 1, wherein the latch element can be retained in and latchingly engaged with the first  
5 connector element at two different positions of a first position and a second position which are displaced to one another in the insertion direction of the latch element.

8. The electrical connector assembly according to Claim 1, wherein the latch element can be retained in and latchingly engaged with the first  
10 connector element at two different positions of a first position and a second position which are displaced to one another in the insertion direction of the latch element, and wherein the first projected portion is retained in the first recessed portion at the first position and the first projected portion as was released from the retention in the first recessed portion is retained in and  
15 latchingly engaged in a second recessed portion formed in the first connector element at the second position.

9. The electrical connector assembly according to Claim 1, wherein a front end portion at the other end portion of the cantilevered flexible portion is formed to be bent in the direction orthogonal to the insertion/mating  
20 direction.